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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/809,789	03/26/2004	Yoshihiro Hori	65933-082	7144

20277 7590 03/02/2007

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EXAMINER	
GERGISO, TECHANE	
ART UNIT	PAPER NUMBER
2137	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/02/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/809,789	HORI ET AL.	
	Examiner	Art Unit	
	Techane J. Gergiso T. G	2137	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *16 February 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-17* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-17* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

GUY LAMARRE
PRIMARY EXAMINER

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on 3/26/04 is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *11/03/05; 02/16/06; 03/26/04*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This is a non-final Office Action in response to the application filed on February 16, 2006.

2. Claims 1-17 have been examined.

3. Claims 1-17 are pending.

Claim Objections

4. Claims 1, 4, 5 and 12-17 are objected to because of the following informalities: Claim 1: lines 1, 4, 5; claim 4: lines 4, 6, 8; claim 5: line 3; claim 12: lines 1, 2, 3, 6; claim 13: lines 1, 4, claim 14: line 1; claim 15: line 1; claim 16: line 1 and claim 17: line 1 uses "/" in "**inputting/outputting**", "**to/from**", and "**input/output**". The use of "/" use are not clearly specified to define the scope of the claims and therefore and its use renders the scope of the claims ambiguous. Appropriate correction is required.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 1-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kawada et al. (hereinafter referred to as US Pat. No. 7,120,251) in view of Ishibashi et al. (hereinafter referred US. Pat. No.: 7,099,479).

As per claim 1:

Kawada discloses a host device for inputting/outputting data to/from a storage device for storing data, the host device comprising:

a controller which divides a series of cryptographic input/output processing for encrypting data to be secured and inputting/outputting the same into a plurality of procedures, and issues to the storage device a command for making the storage device execute a procedure to be executed on the storage-device side out of the procedures (figure 1:10, 11, 101, 108, 107, 105, 104, column 9: lines 45-64; column 23: lines 30-57; column 26: lines 49-64).

the controller obtains information for estimating time necessary to execute the command from the storage device prior to the issuance of the command, sets a wait time for the command based on the obtained information, issues the command to the storage device, and waits the time set for the command before it issues a command for the next procedure to the storage device (column 4: lines 1-15; lines 45-60; column 5: lines 5-21).

Kawada does not explicitly disclose a plurality of procedures. Ishibashi, in analogous art, however, discloses a plurality of procedures (column 25: lines 4-15, 22-45). Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the system disclosed by Kawada to include a plurality of procedures. This modification would have been obvious because a person having ordinary skill in the art would

have been motivated to do so to provide an information sending system, an information distribution system, an information sending device, an information receiving device, an information sending method, an information receiving method and a program storing medium that are capable of preventing piracy of contents with a simple configuration as suggested by Ishibashi in (column 3: lines 10-16).

As per claim 2:

Kawada discloses a host device, wherein the information for estimation includes any one of a typical processing time, an average processing time, and a maximum processing time necessary to execute the command (column 4: lines 5-18).

As per claim 3:

Kawada discloses a host device, wherein the information for estimation includes any one of a typical processing time, an average processing time, and a maximum processing time necessary for at least one basic process out of an encrypting operation, a decrypting operation, a hash operation, a random number generating operation, and log retrieval which are used to execute the command (column 41: lines 50-63).

As per claim 4:

Kawada discloses a storage device comprising:

a storage medium which stores data (column 12: lines 30-45);

a controller which receives a command from a host device in executing a series of cryptographic input/output processing for encrypting data to be secured and inputting/outputting the same between the storage medium and the host device, the command being issued as a result of division of the cryptographic input/output processing (figure 1:10, 11, 101, 108, 107, 105, 104, column 9: lines 45-64; column 23: lines 30-57; column 26: lines 49-64); and

a cryptographic processing unit which executes the command (figure 1: 105, 103, 102, 12), wherein

in response to a request from the host device, the controller provides information from which the host device estimates the time necessary for the cryptographic processing unit to execute the command (column 4: lines 1-15; lines 45-60; column 5: lines 5-21).

Kawada does not explicitly disclose a plurality of procedures. Ishibashi, in analogous art, however, discloses a plurality of procedures (column 25: lines 4-15, 22-45;). Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the system disclosed by Kawada to include a plurality of procedures. This modification would have been obvious because a person having ordinary skill in the art would have been motivated to do so to provide an information sending system, an information distribution system, an information sending device, an information receiving device, an information sending method, an information receiving method and a program storing medium

that are capable of preventing piracy of contents with a simple configuration as suggested by Ishibashi in (column 3: lines 10-16).

As per claim 5:

Kawada discloses a storage device, wherein according to the processing procedures, the cryptographic input/output processing is divided into any of process units including:

a process for receiving data input from the host device and performing encryption or decryption using the cryptographic processing unit if necessary (figure 1: 104, 103, 105, 108);

a process for performing encryption, decryption, or signature attachment using the cryptographic processing unit in order to output data to the host device (figure 1: 102, 103, 104); and

a process for outputting data to the host device, and the command is issued by each of the process units divided (figure 1: 103, 105, 106, 107).

As per claim 6:

Kawada discloses a storage device, wherein the information for estimation includes any one of a typical processing time, an average processing time, and a maximum processing time necessary to execute the command (column 4: lines 5-18).

As per claim 7:

Kawada discloses a storage device, wherein the information for estimation includes any one of a typical processing time, an average processing time, and a maximum processing time necessary to execute the command (column 41: lines 50-63).

As per claim 8:

Kawada discloses a storage device, wherein the information for estimation includes any one of a typical processing time, an average processing time, and a maximum processing time necessary for at least one basic process out of an encrypting operation, a decrypting operation, a hash operation, a random number generating operation, and log retrieval which are used to execute the command (column 41: lines 50-63).

As per claim 9:

Kawada discloses a storage device, wherein the information for estimation includes any one of a typical processing time, an average processing time, and a maximum processing time necessary for at least one basic process out of an encrypting operation, a decrypting operation, a hash operation, a random number generating operation, and log retrieval which are used to execute the command (column 41: lines 50-63).

As per claim 10:

Kawada discloses a storage device, wherein the controller checks if the commands issued as a result of division of the plurality of procedures are in regular order of execution (column 9: lines 45-60; column 10: lines 45-65).

As per claim 11:

Kawada discloses a storage device, wherein the controller checks if the commands issued as a result of division of the plurality of procedures are in regular order of execution (column 9: lines 45-60; column 10: lines 45-65).

As per claim 12:

Kawada discloses a data input/output method for executing a series of cryptographic input/output processing for encrypting data to be secured and inputting/outputting the data between a storage device for storing data and a host device, comprising:

dividing the cryptographic input/output processing, and making the host device execute a procedure to be executed on the host-device side out of the procedures; allowing the host device to issue a command to the storage device in order to make the storage device execute a procedure to be executed on the storage-device side; allowing the storage device to receive the command (figure 1:10, 11, 101, 108, 107, 105, 104, column 9: lines 45-64; column 23: lines 30-57; column 26: lines 49-64); and

allowing the storage device to execute the command, wherein the host device obtains information for estimating time necessary for the storage device to execute the command from the storage device prior to the issuance of the command, issues the command to the storage device, and waits the time estimated necessary to

execute the command before it issues a command for the next procedure to the storage device (column 4: lines 1-15; lines 45-60; column 5: lines 5-21).

Kawada does not explicitly disclose a plurality of procedures. Ishibashi, in analogous art, however, discloses a plurality of procedures (column 25: lines 4-15, 22-45). Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the system disclosed by Kawada to include a plurality of procedures. This modification would have been obvious because a person having ordinary skill in the art would have been motivated to do so to provide an information sending system, an information distribution system, an information sending device, an information receiving device, an information sending method, an information receiving method and a program storing medium that are capable of preventing piracy of contents with a simple configuration as suggested by Ishibashi in (column 3: lines 10-16).

As per claim 13:

Kawada discloses a data input/output method, wherein according to the processing procedures, the cryptographic input/output processing is divided into any of process units including:

a process for receiving data input from the host device and performing encryption or decryption using the cryptographic processing unit if necessary (figure 1: 104, 103, 105, 108);

a process for performing encryption, decryption, or signature attachment using the cryptographic processing unit in order to output data to the host device (figure 1: 102, 103, 104); and

a process for outputting data to the host device, and the command is issued by each of the process units divided (figure 1: 103, 105, 106, 107).

As per claim 14:

Kawada discloses a data input/output method, wherein the information for estimation includes any one of a typical processing time, an average processing time, and a maximum processing time necessary to execute the command (column 41: lines 50-63).

As per claim 15:

Kawada discloses a data input/output method, wherein the information for estimation includes any one of a typical processing time, an average processing time, and a maximum processing time necessary to execute the command (column 41: lines 50-63).

As per claim 16:

Kawada discloses a data input/output method, wherein the information for estimation includes any one of a typical processing time, an average processing time, and a maximum processing time necessary for at least one basic process out of an encrypting operation, a decrypting operation, a hash operation, a random number generating operation, and log retrieval which are used to execute the command (column 41: lines 50-63).

As per claim 17:

Kawada discloses a data input/output method, wherein the information for estimation includes any one of a typical processing time, an average processing time, and a maximum processing time necessary for at least one basic process out of an encrypting operation, a decrypting operation, a hash operation, a random number generating operation, and log retrieval which are used to execute the command (column 41: lines 50-63).

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

See the notice of reference cited in form PTO-892 for additional prior art

Contact Information

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Techane J. Gergiso whose telephone number is (571) 272-3784 and fax number is (571) 273-3784. The examiner can normally be reached on 9:00am - 6:00pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Emmanuel Moise can be reached on (571) 272-3865. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

T. G

Techane Gergiso

Patent Examiner

Art Unit 2137

February 27, 2007